

**Referência:** BI-1/CESAM/REUSE/2025

#### **NOTICE FOR RESEARCH SCHOLARSHIP AWARD**

A call is now open for the award of 1 Research Scholarship (BI) within the scope of the project “Enzymatic CO<sub>2</sub> Capture in a Rotating Packed Bed and Electrocatalytic CO<sub>2</sub> Reduction to Useful Products” (no. 101172954) of CESAM under the following conditions:

**1. Scientific Area:** Environment, Chemical or Mechanical Engineering, Physics

**2. Funding Source:** Horizon Europe

**3. Admission requirements: Students enrolled in a Doctoral Programme:** Sciences and Environmental Engineering, Mechanical engineering, Chemical Engineering, Physics Engineering, Mathematics, Applied Mathematics, Refining, Petrochemistry and Chemistry engineering.

Preferred requirements are:

- a) Undergraduate degree in Engineering, Economics, Physics, Environment, or Social Sciences.
- b) Publications in indexed scientific journals and/or conference proceedings.
- c) Sufficient knowledge of written and spoken English.
- d) Experience in fieldwork and team spirit.

**4. Eligibility:**

Eligible candidates are those who meet the provisions of paragraph a) of no. 1 of Article 2 of the Research Grant Holder Statute, as amended by Decree-Law no. 123/2019, of August 28, and Article 9 of the Scientific Research Grant Regulations of the University of Aveiro.

**5. Work Plan:**

The work plan to be developed during the scholarship reflects the project's scope and consists of the following:

- a) Literature review of the co-combustion/co-gasification process for energy production and supply to complementary systems (e.g., CO<sub>2</sub> capture units).
- b) Computational simulation of co-gasification and co-combustion processes using commercial software and ANSYS FLUENT.
- c) Optimization of the simulated system using statistical methods (Design of Experiments).
- d) Experimental tests on co-gasification and co-combustion.
- e) Dissemination of the results obtained, preparation of articles, and support for management activities.

**6. Applicable legislation and regulations:** Research Grant Holder Statute, as amended by Decree-Law no. 123/2019, of August 28; Scientific Research Grant Regulations of the University of Aveiro, Regulation no. 292/2020, published in the Diário da República no. 61, 2nd Series, of March 26; Decree-Law no. 66/2018, of

August 16 (Legal regime for the recognition of academic degrees and higher education diplomas awarded by foreign higher education institutions).

**7. Place of work:** The work will be developed at the DAO of the University of Aveiro, under the scientific supervision of Professor Valter Bruno Reis e Silva.

**8. Duration of the scholarship:** The scholarship will last for 18 months, starting in May 2025, and must not exceed the limits defined in paragraphs 5 and 6 of Article 9 of Regulation no. 292/2020, of February 28, published in the Diário da República, no. 61, 2nd Series, of March 26 (Scientific Research Grant Regulations of the University of Aveiro).

**9. Monthly maintenance allowance:** The scholarship amount is 1.309,64€, according to the table of monthly maintenance allowances set out in Annex III of the Scientific Research Grant Regulations of the University of Aveiro, subject to updates that may occur and be applicable. The grant holder may also be reimbursed for the corresponding amount of Voluntary Social Insurance, in case of adherence to this scheme.

Note: Depending on the case, the grant may also include other components, namely, tuition fees for scholarships associated with the award of an academic degree or diploma up to the maximum value provided in the table in Annex III of Regulation no. 292/2020.

**10. Selection methods:** The selection methods to be used are as follows:

a) Curriculum assessment (50%):

a1) Motivation letter (20%);

a2) Scientific component (60%);

i. Publications (10%);

ii. Participation in R&D activities (45%);

iii. Participation/organization of scientific events (45%);

a3) Other merits relevant to the performance of duties (20%).

b) Interview (50%).

Candidates with a score below 9.50 in the selection method(s) will be excluded from the final evaluation.

The jury reserves the right not to award the scholarship if no candidates with the appropriate profile apply.

**11. Selection Committee Composition:**

Effective members:

Dr. Valter Bruno Reis e Silva

Prof. Luís António da Cruz Tarelho

Alternative members:

Flávio Gonzaga Castro Santos Silva

Paula Sofia Gil Neto Quinteiro

**12. Application deadline and form:**

The call is open from 19 February 2025 to 11 March 2025, with applications only being accepted within the established deadline.

Note: The application submission period cannot be less than 10 working days. Applications must be submitted by sending a cover letter accompanied by the following documents: Curriculum Vitae, qualification certificates, declaration of honor, and other relevant supporting documents. The applicant must also provide an email address to which they accept being notified for all purposes within this procedure. Applications should be sent by email to [v.b.silva@ua.pt](mailto:v.b.silva@ua.pt)

**13. Publication/notification of results:**

The evaluation results will be announced within a maximum of 60 working days from the application submission deadline, by notifying the applicants. Applicants are informed, in a prior hearing, in accordance with the Administrative Procedure Code, of the probable outcome of the final decision, and may, within 10 working days from this notification, present their position on this decision. The final results may be appealed to the Rector within 10 working days of their notification.

**14. Validity of the competition:** The final ranking list of candidates will be valid until December 2025, for the purpose of constituting a reserve selection list.

The scholarship contract and final report templates to be prepared by the grant holder and supervisor can be consulted at [bolseiros - sgrh - Universidade de Aveiro \(ua.pt\)](#)